What is claimed is:

1. A non-oral pharmaceutical composition comprising an amount of desmethylselegiline such that one or more unit doses of said composition, administered on a periodic basis, is effective to treat a selegiline-responsive disease or condition in a subject to whom said composition is administered.
2. The composition according to claim 1 wherein the desmethylselegiline is in a substantially enantiomerically pure form.
3. The composition according to claim 1, for sublingual or buccal administration.
4. The composition according to claim 1, for transdermal administration.
5. The composition according to claim 1, wherein desmethylselegiline is employed as a substantially racemic mixture of enantiomers.
6. The composition according to claim 1, adapted for effecting neuronal rescue or neuronal protection.
7. The composition according to claim 1, adapted for restoring or improving immune system function in a subject.
8. In a method for obtaining a selegiline-like therapeutic effect in a subject suffering from a selegiline-responsive disease or condition, the improvement which comprises administering to said subject desmethylselegiline employing a dosage regime effective to produce said selegiline-like therapeutic effect.
9. The improvement according to claim 8, wherein said subject is human.
10. The improvement according to claim 9, wherein desmethylselegiline is employed as a substantially pure stereoisomer in the treatment of ADHD.
11. The improvement according to claim 8, wherein said selegiline-like therapeutic effect is neuronal rescue or neuronal protection.
12. The improvement according to claim 8, wherein said selegiline-like therapeutic effect is an improvement or restoration of immune system function.
13. A method of treating a condition in a mammal produced by neuronal degeneration or neuronal trauma which comprises administering to said mammal desmethylselegiline or a pharmaceutically acceptable acid addition salt thereof, at a daily dose, administered in a single or multiple dosage regimen, of at least about

0.015 mg, calculated on the basis of the free secondary amine, per kg of the mammal's body weight.

14. A method according to claim 13, comprising administering said desmethylselegiline or a pharmaceutically acceptable salt thereof by a route that relies upon gastrointestinal absorption.

15. The method of claim 13 comprising administering said desmethylselegiline or a pharmaceutically acceptable salt thereof by a route that does not rely upon gastrointestinal absorption.

16. The method of claim 15, wherein said desmethylselegiline is administered parenterally as a pharmaceutically acceptable acid addition salt.

17. The method of claim 16, wherein the pharmaceutically acceptable acid addition salt is the hydrochloride salt.

18. The method of claim 15, wherein said desmethylselegiline is administered transdermally.

19. The method of claim 15, wherein said desmethylselegiline is administered buccally.

20. The method of claim 15, wherein said desmethylselegiline is administered sublingually.

21. The method according to claim 13, wherein the daily dose, administered in a single or multiple dosage regimen, is from about 0.5 to about 1.0 mg, calculated on the basis of the free secondary amine, per kg of the mammal's body weight.

22. The method according to claim 13, wherein the mammal is a human.

23. The method according to claim 13, wherein the mammal is a canine.

24. The method according to claim 13, wherein the mammal is a feline.

25. A transdermal delivery composition for use in treating a condition in a mammal produced by neuronal degeneration or neuronal trauma which comprises a layered composite containing in at least one layer an amount of desmethylselegiline, or a pharmaceutically acceptable acid addition salt thereof, sufficient to supply a daily transdermal dose of at least about 0.015 mg of the free secondary amine, per kg of the mammal's body weight.

26. A method of treating a condition in a mammal produced by immune system dysfunction which comprises administering to the mammal desmethylselegiline, or a pharmaceutically acceptable acid addition salt thereof, at a daily dose, administered

in a single or multiple dosage regimen, of at least about 0.015 mg, calculated on the basis of the free secondary amine, per kg of the mammal's body weight.

27. A therapeutic package for dispensing to, or for use in dispensing to, a patient being treated for a neuronal-protective or neuronal-regenerative selegeline-responsive disease or condition comprising:

a) one or more unit doses, each such unit dose comprising an amount of desmethylselegiline such that periodic administration of one or more of said unit doses is effective to treat said disease or condition, and

b) a finished pharmaceutical container therefor, wherein:

i) said container containing said unit dose or unit doses; and

ii) said container further containing or comprising labeling directing the use of said package in the treatment of said disease or condition.

28. A therapeutic package according to claim 24, wherein the unit dose is adapted for oral administration.

29. A therapeutic package according to claim 25, wherein the unit dose is a tablet or capsule.

30. A therapeutic package according to claim 24, wherein the unit dose is adapted for non-oral administration.

31. A method of dispensing desmethylselegiline to a patient being treated for a neuronal-protective or neuronal-regenerative selegeline-responsive disease or condition, comprising providing said patient with a therapeutic package, wherein said package comprises:

a) one or more unit doses, each such unit dose comprising an amount of desmethylselegiline such that periodic administration of one or more of said unit doses is effective to treat said disease or condition, and

b) a finished pharmaceutical container therefor, wherein:

i) said container containing said unit dose or unit doses; and

ii) said container further containing or comprising labeling directing the use of said package in the treatment of said disease or condition.

32. The method of claim 28, wherein the unit dose of said therapeutic package is adapted for oral administration.

33. The method of claim 28, wherein the unit dose of said therapeutic package is adapted for non-oral administration.